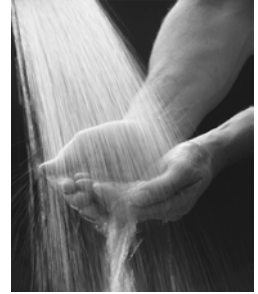


Environmental Health Promotion: Bridging Traditional Environmental Health and Health Promotion

22nd National Conference on Health Education & Health Promotion
Wednesday, May 5, 2004

Produced by the Alabama Department of Public Health
Video Communications Division

An Overview of Environmental Health Problems



Elizabeth H. Howze, ScD, CHES
Director, Division of Health Education and Promotion

Defining “Environment”



Environmental Health...



Refers to freedom from illness or injury related to exposure to toxic agents and other environmental conditions that are potentially detrimental to human health.

Institute of Medicine



- Love Canal, NY
We've got better things to do than sit around and be CONTAMINATED!

Priority Environmental Health Conditions

- Birth defects and reproductive disorders
- Cancer
- Immune function disorders
- Kidney dysfunction
- Liver dysfunction
- Lung and respiratory diseases
- Neurotoxic disorders





Linking Environmental Conditions with Specific Measures of Human Health



Lead Poisoning



Contaminated Housing



Hazardous Chemicals in Schools



Other Environmental Hazards

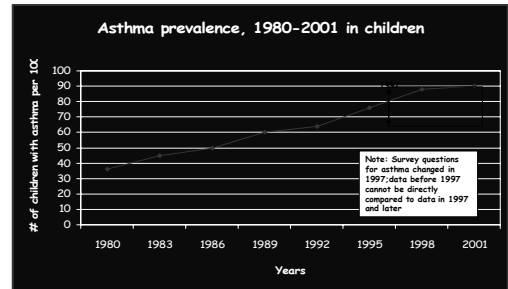
- Air pollution
- Exposure to toxicants
- Nuclear radiation
- Natural disasters
- Technologic disasters



Air Pollution



Childhood Asthma



Data from CDC National Center for Health Statistics,
National Health Interview Surveys 1980-2001

Industrial Waste and Solvents

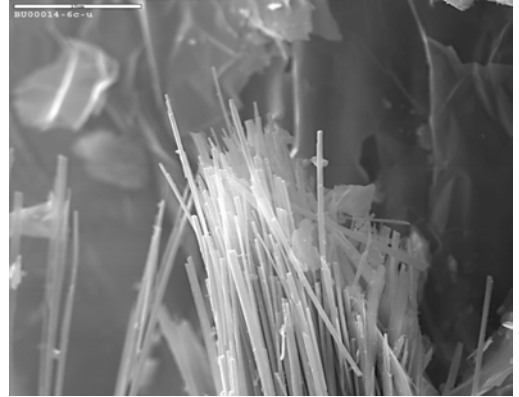


Food Supply



Contaminated Communities





Technologic Disasters



Initial Assessment of the Distribution of High Volume Chemical Production and Use Facilities With Greater Than 100,000 Pounds Onsite



Natural Disasters



Terrorism and Chemical Weapons Disposal





- Increased water pollution
- Heat island effects
- Physical activity patterns
- Motor vehicle crashes
- Pedestrian injuries
- Mental health consequences
- Social capital effect



Challenges Faced by Communities Living with Environmental Hazards

Grant T. Baldwin, PhD, MPH, CHES
Site Activities Branch

**For every human problem,
there is a neat, simple solution
and it is always wrong.**

H.L. Mencken

Overview

- Distinguish between tame and wicked problems
- Outline site-specific environmental health education
- Identify common community concerns – health and non-health
- Discuss site-specific examples

“Wicked” Problems

- Types of problems – wicked and tame
- Use of the word “wicked”
- Definition of a wicked problem

Wicked versus Tame Problems

- Problem definition
- Involvement of stakeholders
- Presence of a “Stopping Rule.”
- Nature of the problem

Site-Specific HE Practice

- Health education is practiced in the context of diverse culture, norms, beliefs, values, literacy, language, learning styles, behaviors, partnerships, and competing messages.
- Health education is both an art and a science.

Community and Health

- Definitions of community
- Health is. . .
- Value of community involvement and participation

Common Community Concerns

- Safety
- Environment
- Economics
- Aesthetics
- Fairness
- Process
- Legalities

Prioritizing Health Issues

- Economic loss
- Loss of manpower (productivity)
- Severity
- Urgency
- Medical costs
- Future need
- Economic feasibility
- Ease or speed with which an issue can be resolved
- Availability of resources
- Legality
- Acceptability

Herculaneum, MO



Libby, MT



Vieques, PR



Culturally Sensitive Concepts for Addressing Diverse Audiences

Sandra M. Lopez-Carreras, MS
Site Activities Branch



Defining Diversity

- Demographic characteristics
- Other characteristics

Culture . . .

- Is defined by people's shared ideas, meanings, and values
- Is socially learned
- Includes patterns of behaviors
- Is modified constantly through life experiences
- Exists at an unconscious level

Source: Speaking of Health; Assessing Health Communication Strategies for Diverse Populations, Institute of Medicine, 2002

Why Culturally-Sensitive Health Education Programs?

- Racial and ethnic diversity in the United States is increasing.



U.S. Census Bureau Projections

- In 50 years, Hispanic/Latino and Asian populations will triple.
- 56 out of every 100 adolescents will represent an ethnic minority group.

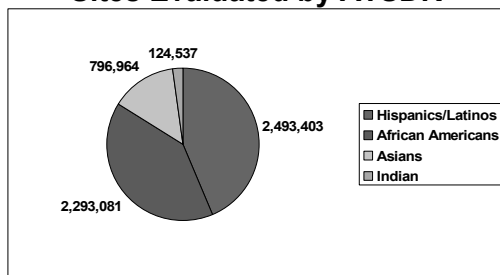
Diversity in United States

- According to 2000 U.S. Census, *47 million persons*, 5 years old or older, speak a language other than English at home.

Why Culturally-Sensitive Health Education Programs?

- Many minority populations have been affected by exposure to hazardous wastes.

Number of Minority Populations Living Close to Hazardous Waste Sites Evaluated by ATSDR



Source: HAZDAT ATSDR Database

Why Culturally-Sensitive Health Education Programs?

- Different cultures might have different definitions for:
 - Time
 - Disease
 - Family
 - Death and dying
 - Societal classes
 - Others

Why Culturally-Sensitive Health Education Programs?

- Members of different cultures might relate differently with:
 - Elders
 - Powerful figures
 - Neighbors
 - Women
 - Men
 - Others

Steps to Achieve Culturally Competent Programs

- Value diversity
- Conduct a self-assessment
- Be aware of the dynamics when members of two or more cultures are interacting

Steps to Achieve Culturally Competent Programs

- Take steps to institutionalize cultural knowledge in your organization
- Adapt your program/services to the needs of diverse groups

Hispanics/Latinos: Considerations

- Be aware that Hispanics/Latinos represent *unique cultures*, with similarities and differences.
- Hispanics/Latinos *may be of any race*.

Hispanics/Latinos: Considerations

- Recognize that the degree of acculturation varies among generations.

Hispanics/Latinos: Considerations

- Ask the group how they prefer to be identified (Hispanic, Latino, Mexican, Puerto Rican, etc.) in health educational activities and materials.

Hispanics/Latinos: Considerations

- Learn about their commonalities.
- Learn about their differences.
- Be aware of stereotypes.



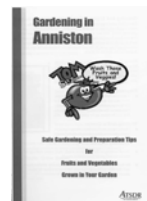
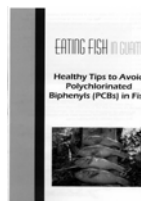
New Models & Measures for Environmental Health Promotion

Terrie D. Sterling, PhD
Site Activities Branch



Traditional Health Education/Promotion Efforts

- Focus on changing behaviors of individuals or small groups of individuals





Public Health Campaign



Non-Traditional Health Education/Promotion Efforts

- Focus on changing policies and environments in which people live, i.e., community-level change
- Does not require individuals to actively do something different (change behavior)
- Can affect many people simultaneously

Community-level Intervention



Barriers to Prevent Exposure



Preventing Chemical Threats

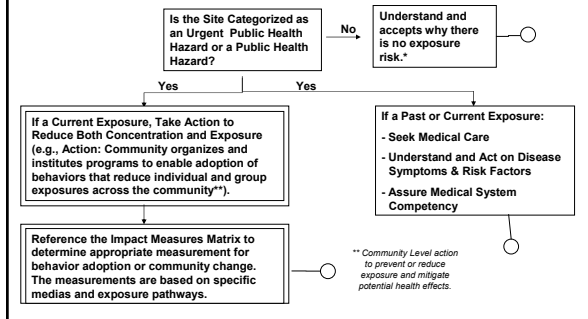


DHEP Broadening Efforts

- Traditional and non-traditional health education/promotion interventions
- Indicators for individual-level behavioral change and community-level change

Model for Behavioral and Community-level Interventions and Indicators of Change

Health education/promotion, community organization, and capacity development activities are generally carried out at each site to address community concerns about possible and known health effects from exposures at the site.



Behavioral Interventions and Indicators

Sample: Measures Matrix for Media and Exposure Pathway

Media and Pathway	Behavioral Intervention	Evaluation Measure	Indicator (Next Step)
Air Media with Inhalation Pathway	Uses ventilation measures in living and/or work spaces	Percent of estimated affected population using living and/or work space ventilation measures	<ul style="list-style-type: none"> Opens windows daily Installs vents in crawl space Uses exhaust fan
Water Media with Dermal Pathway	Complies with advisories on use of contaminated waters	Percent of estimated affected population that complies with advisories on use of contaminated waters	<ul style="list-style-type: none"> Uses bottled water for human consumption Limits bathing time

Community-level Interventions and Indicators

Sample: Measures Matrix for Media and Exposure Pathway

Media and Pathway	Community Action	Evaluation Measure	Indicator (Next Step)
Soil Media with Ingestion Pathway	Community organizes, determines options, and acts to create social pressure to reduce or limit activities that produce soil disruption within the community	Number of community advocated measures implemented to reduce or limit activities that produce soil disruption within the community	<ul style="list-style-type: none"> Regulation implemented to control construction site dust (e.g., by applying water spray, mulch, sod, or other stabilizing ground covers)
Biota Media with Ingestion Pathway	Community organizes and institutes programs to enable adoption of behaviors that reduce consumption of contaminated foods	Number of support programs started or identified to enable adoption of behaviors that reduce consumption of contaminated foods	<ul style="list-style-type: none"> Presence of fish advisory signs Stocks fish in a safe stream

Where Do We Go From Here

- Logic model
- Intervention protocols
- Establish indicators



Moving Forward!

- GIS
- BRFSS
- Social determinants of health work group
- Partner input

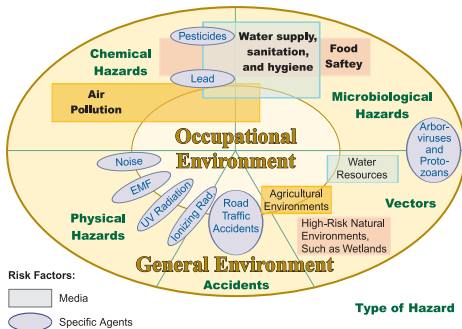
“The major public health problems of our time will not be solved solely by individual actions and health choices, but by individuals coming together to make our society one in which health choices are easy, fun and popular”.

**James S. Marks, MD, MPH
Director, NCCDPHP, CDC
2001**

Bridging Environmental Health and Health Promotion

**Elizabeth H. Howze, ScD, CHES
Division of Health Education and Health Promotion**

Environmental Hazards and Risk Factors



Health Promotion

“... the process of enabling people to increase control over, and to improve, their health.”

Ottawa Charter for Health Promotion (1986)

Ottawa Charter for Health Promotion

- **Build healthy public policy**
- **Create supportive environments**
- **Strengthen community action**
- **Develop personal skills**
- **Reorient health services toward prevention**

Environmental Health Promotion

“any planned process employing comprehensive health promotion approaches to assess, correct, control and prevent those factors in the environment that can potentially harm the health and quality of life of present and future generations.”

Howze, Baldwin, Kegler. Environmental Health Promotion: Bridging Traditional Environmental Health and Health Promotion. In press. Health Education and Behavior, Summer 2004.

Environmental Health Promotion

- Evidence-based best practices
- Community assessment and mobilization
- Collaborative intervention planning
- Communication and capacity building



Environmental Health Promotion

- Partnerships
- Health professional education
- Policy change
- Evaluation

Environmental Health Challenges: Assessment

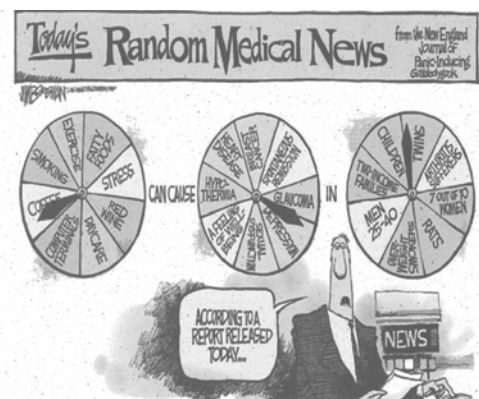
- A vast range of environmental health issues
- Few available rates
- Many opportunities for confounding
- Few reliable tests available; tests may not point to interventions
- Appropriate models and measures

- Multiple exposure pathways
- Mixtures
- Little environmental surveillance
- Latency



Environmental Health Challenges: Communication

- Perceptions of risk
- Limited science base
- Translation of science
- Perceptions of government agencies
- Expectations of government agencies



Environmental Health Challenges: Interventions

- Marginalized communities
- Politics
- Costs
- Economics
- Changes required on multiple levels
- Uncertainty and controversy

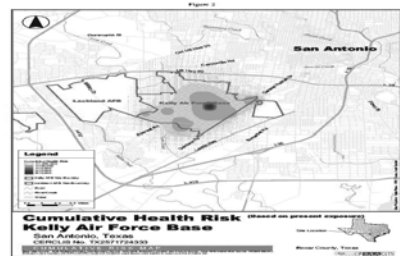
Environmental Health Challenges: Emerging Threats

- Terrorism
- Epidemics associated with unhealthy home and community environments
- Weakened environmental public health infrastructure

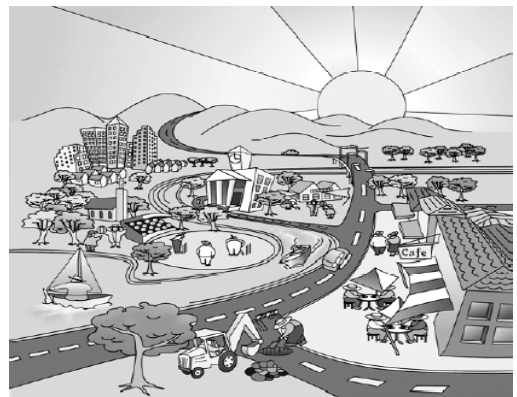
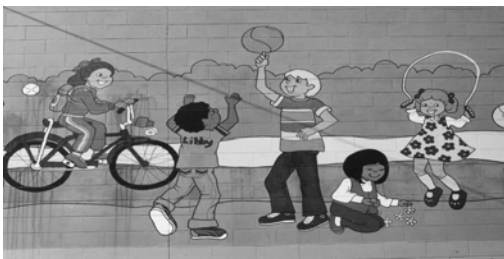


A New Public Health Specialty - Environmental Health Promotion

Applied Research on Community Environmental Health Indicators



The Goal: Bridging Health Promotion and Environmental Health



Upcoming Programs

**Transforming Vision to Reality:
Potential Power of Partnership**

Thursday, May 6, 2004

2:00-3:30 p.m. (Eastern Time)

**Principles for Effective Communication
of Health Risks in High Concern, High
Stress Situations**

Friday, May 7, 2004

2:00-3:30 p.m. (Eastern Time)